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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/528,946

03/23/2005

Antonius Johannes Maria Nellissen

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08/01/2008

PHILIPS INTELLECTUAL PROPERTY & STANDARDS

P.O. BOX 3001

BRIARCLIFF MANOR, NY 10510

EXAMINER

ROSASCO, STEPHEN D

ART UNIT

PAPER NUMBER

1795

MAIL DATE

DELIVERY MODE

08/01/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/528,946	<b>Applicant(s)</b> NELLISSEN, ANTONIUS JOHANNES MARIA	
	<b>Examiner</b> Stephen Rosasco	<b>Art Unit</b> 1795	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 05 May 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.  
     4a) Of the above claim(s) 16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 March 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>11/15/06, 6/28/07</u> . | 6) <input type="checkbox"/> Other: _____  |

### Detailed Action

Applicant's election without traverse of Group I (claims 7-15 and 17) in the reply filed on 5/5/08 is acknowledged. In response, the examiner will examine the claims of Groups I and II (1-15 and 17).

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-15 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suganaga (6,352,800).

Suganaga teaches a reticle for use in exposing a semiconductor, comprising a transmission section having a transmissivity of about 1 with respect to illumination light for exposing, and whose entrance-side surface facing the illumination light has uniform irregularities.

Suganaga, teaches a reticle for use in exposing a semiconductor, comprising a transmission section having a transmissivity of about 1 with respect to illumination light for exposing, and whose entrance-side surface facing the illumination light has uniform irregularities; and a semi-transmission section imparting to the illumination light passing

therethrough a phase difference of about  $(2n+1)\pi$  ("N" is an integer, and  $\pi$  is the ratio of the circumference of a circle to its diameter), which is formed on a lower surface opposite to the entrance-side surface of said transmission section, and whose transmissivity with respect to the illumination light having passed through said transmission section is one-fourth or less that of said transmission section.

Suganaga also teaches in (col. 1, line 47) - FIG. 5 shows diffraction of light caused when the reticle 110 is exposed to coherent light formed from a plane wave of coherent wavelength and phase. In FIG. 5, the same reference numerals as those provided in FIG. 4 designate the same elements, and hence their explanations are omitted here. In general, as shown in FIG. 5, in a case where the reticle 110 is exposed to coherent light, light 50 which has entered the reticle 110 at right angles is divided into light 52 (0-order light) which travels straight ahead and light beams 51 and 53 ( $\pm m$ -order light beams, where  $m=1, 2, 3, \dots$ ) which are diffracted, by the surface (lower surface) of the rectile 110. Here, provided that an angle of diffraction; for example, an angle of diffraction exemplified by an angle formed between the straightly-traveling light 52 and the diffracted light 51 is  $\theta$ ; a pattern pitch--which is in the proportion of one line representing the width of linear patterns formed on the rectile 110 to one space representing the space between the lines--is taken as  $P$ ; an index of refraction of the reticle 110 is taken as " $n$ "; the numeric aperture expressed as  $NA = n \sin \theta$  is taken as  $NA$ ; and the wavelength of the incident light 50 is taken as  $\lambda$ , there stands a relationship between the pattern pitch  $P$  and the numeric number  $PA$ , as expressed below.

Art Unit: 1795

The teachings of Suganaga differ from those of the applicant in that the applicant teaches using the resist pattern as a mask for configuring conductive material to obtain the required wiring.

However, this would be considered an obvious use for side exposure, and therefore, it would have been obvious to one having ordinary skill in the art to take the teachings of Suganaga and perform side exposure for forming wiring on the side of a substrate in order to make the claimed invention because this would have been obvious modification for usage to one in the art.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Stephen Rosasco whose telephone number is (571) 272-1389. The Examiner can normally be reached Monday-Friday, from 8:00 AM to 4:30 PM. The Examiner's supervisor, Mark Huff, can be reached on (571) 272-1385. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/S. Rosasco/  
Primary Examiner, Art Unit 1795

S.Rosasco  
07/29/08